SUMMARY OF
MEDICAL SURVEILLANCE FOR FORMER DOE WORKERS
A PROPOSED APPROACH (OCTOBER 1995)

- Consistent with stakeholder input, this proposal has changed significantly from the original, complex-wide hazard-based approach for addressing potential health outcomes related to exposures to asbestos, high-level radiation, and beryllium.

- The current draft proposal calls for a **competitive process** for **cooperative agreements** to pilot a site-specific approach for a limited number of projects focused on for former workers at selected DP and EM sites over the next 12 to 18 months.

- Prior to soliciting project applications in the Federal Register, DOE will identify preferred sites for these projects selected based on: 1) the presence of existing worker and community health programs; 2) cooperation and support from DOE site managers and operating contractors; and 3) cooperation and support from both national and local unions representing former workers.

- Each project will begin with a "needs assessment" to identify the most significant hazards at the site or within a particular operation (e.g., the canyons at Savannah River) or to focus on a particular segment of at-risk workers (e.g., maintenance workers, machinists, etc.)

- If a needs assessment demonstrates that further investigation of former workers is warranted, cooperative agreement recipients will implement steps to:

  - **identify** and **locate** those former workers who based on their actual or probable exposure history are "at risk;"
  - **ascertain the health concerns** of former workers related to their past DOE employment;
  - **communicate** risk information to former workers regarding the nature of their health risk and discuss the appropriate actions that could be taken;
  - **provide appropriate medical screening** to targeted former worker populations based on exposure history and the availability of acceptable screening tests;
  - **coordinate** appropriate **referrals, diagnostic work-up**, and **follow-up treatment;**
  - provide for coordination with **existing insurance** and **benefits programs**;
  - manage data collection and handling in accordance with DOE-specified requirements and quality control procedures; and
  - establish an independent project advisory body to monitor and provide advice on project activities.

Attachment

DRAFT
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I. Introduction

This proposal focuses on the development of a pilot program to evaluate former workers whose employment at departmental facilities may have placed their long-term health at significant risk. A goal of this proposed program is to provide information that may be beneficial to ongoing efforts to improve surveillance programs for current and future DOE workers.

In developing and piloting this approach, DOE recognizes that there is much to be learned from available information and the experiences of others, including stakeholders and other experts. For example, ongoing and past medical evaluation programs offered in the private sector and through other Federal agencies provide useful models for evaluation in the design of the DOE program for former workers. DOE has held a series of meetings with external stakeholders, including the National Institute of Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), organized labor, and professional and academic experts in medical surveillance, risk communication, and worker notification. The purpose of these meetings was to gain advice and recommendations from individuals representing a broad range of interests, perspectives, and experience. Current and former DOE site medical directors also have provided their insights, and they are expected to be continuing resources since they have firsthand information and records on former workers, as well as on current and past DOE safety and health practices and programs.

II. Background

The Law

Section 3162 of the National Defense Authorization Act for Fiscal Year 1993 directs the Secretary of Energy, in consultation with the Secretary of Health and Human Services, to develop a program of medical evaluations for current and former DOE workers at significant risk for health problems based on exposures during employment at DOE-owned, contractor-operated facilities. The pilot program proposed here is designed to be both responsive to the law and to the needs and concerns of former workers at DOE facilities, while at the same time offering information useful to the implementation of programs, which address the occupational health of the Department's current workforce.

Related Programs

DOE, through its management and operations (M&O) contractors, provides a range of safety and health programs, including occupational medical services and medical surveillance efforts, to its current workers under the guidance of the DOE Headquarters. Through a variety of ongoing initiatives, DOE is continuously improving and expanding these programs for current workers.

Examples of such programs include improving the way work is conducted through enhanced work planning; integrating safety programs with health programs; increasing worker involvement in identifying and mitigating safety and health concerns; improving and streamlining information gathering; and insuring openness, availability, and access to workers and communities of previously classified hazard information. In addition, with funding from DOE, NIOSH recently awarded five grants to universities and national laboratories to develop innovative techniques for exposure assessment and medical surveillance at DOE sites nationwide.

There are many ongoing and completed health and environmental studies involving DOE sites or their host communities, which provide relevant information for worker programs. These efforts have involved various entities, including DOE, M&O contractors, the Centers for Disease Control and Prevention, state health departments, academic institutions, and organized labor. For example, from 1978 through 1990, there were over 20 epidemiologic studies of the current and former DOE workforce (at more than 14 major production or research and development sites) looking at the health effects of exposure to ionizing radiation. These studies required analysis of radiation dose or radionuclide exposure information on approximately 340,000 of the more than 600,000 current and former DOE employees. Large-scale efforts are currently underway or near completion to reconstruct radiation doses to communities around the major DOE sites. Such efforts have required careful reviews of the processes, inventories, and exposures at these sites and provide a rich source of information on the nature, types, and possible extent of exposure to workers historically at these sites.

Programs outside the DOE complex also provide valuable insight and direction in the design of a DOE effort. The notification, screening, and medical surveillance program developed by NIOSH and the Pennsylvania Department of Health and offered to former workers at risk of bladder cancer subsequent to benzidine, benzene, and BNA exposures at the Drake Chemical Company site in Lock Haven, Pennsylvania, is an example of a successful effort at locating, notifying, and assessing a group of former employees. Similarly, efforts sponsored by the Mount Sinai School of Medicine, in cooperation with the International Association of Heat and Frost Insulators and Asbestos Workers, to locate and screen retired heating and insulation workers for asbestos-related disease is another model of the conduct of such a program among former workers.

DOE has also accumulated its own experience in identifying, locating, and notifying current and former workers exposed to beryllium. Since 1991, over 6,000 current and former workers at the Rocky Flats facility in Denver, Colorado, and the Y-12 plant at Oak Ridge, Tennessee, have been screened for beryllium sensitivity. Of that number, 102 were provided a more thorough diagnostic workup and 39 individuals have been diagnosed with chronic beryllium disease. In the course of this effort, close collaboration between labor and the M&O contractor resulted in a high success rate in identifying and insuring participation in the screening program. In 1996, the DOE Beryllium program will be extended with the goal of insuring that all former DOE workers exposed to beryllium will be afforded the opportunity to participate in screening. Experience with this program and the tools

developed in this effort (such as occupational history and exposure questionnaires), in addition to the experience gained outside of DOE, will provide a sound basis for the development of a pilot program for a broader range/segment of DOE workers.

Finally, experience gained from the recently initiated medical surveillance program for approximately 5,000 current and former Fernald workers will also provide important information on the concerns and occupational health problems of this group of workers. This program is a result of a court-supervised and resource-intensive settlement between former workers and a past DOE prime contractor at Fernald.

Need for an Expanded Program

Outside of the epidemiologic studies that have relied on analyses of mortality data and focused primarily on radiation exposure, only a limited number of studies have been done to assess the long-term health concerns and/or effects of exposure to nonradiation hazards. In addition to the ongoing beryllium surveillance program, there have been studies of neurologic conditions among a cohort of mercury-exposed workers, bladder cancer among some workers exposed to plastics and resins, lung cancer among some workers exposed to nickel, and renal disease among some uranium-exposed workers.

Despite all of the activities conducted by DOE and others to date, there are groups of former workers whose exposure histories and potential health risks have not been adequately characterized. For example, those workers exposed to nonradiation hazards, whose work involved movement from job to job around a site and whose activities varied day by day (i.e., carpenters, maintenance workers, electricians, painters) typify these groups. This proposal offers the opportunity to assess groups such as these and will provide the basis to relate the exposure situations and health outcomes of former workers to the circumstances faced by current workers performing the same or similar tasks.

Efforts to evaluate former workers' occupational histories, site experiences, and exposures, carefully linked in some cases to medical surveillance, could help refine the focus of programs for current and future workers. Many workers have experienced similar past exposures, regardless of whether or not they are still employed by DOE. Further, many current workers will soon be former workers, and some former workers may be employed again to do cleanup work at DOE sites. Monitoring of similarly exposed (but older) former worker populations over time may provide useful data (and possibly improved screening tools) to enhance the effectiveness and efficiencies of current and future worker surveillance programs.

Thus, this proposed pilot program will assist the Department in addressing how best to examine the health experience of DOE workers and working conditions for evidence of effects due to previously unrecognized hazards. Through development and use of effective survey and detection methods, the actual and perceived ability of the Department to limit the type and severity of adverse health effects at DOE sites can be greatly improved. Usually, the greatest uncertainty in the workplace setting is that chronic, low-level exposure might lead to a long latency period disease, like cancer. A long latency period

between exposure and clinically apparent disease or disease excess can create a significant barrier to recognizing the health effects caused by exposure to a particular agent. Effective identification and screening of at-risk former workers in medical surveillance programs will increase the likelihood that a long latency period health effect will be recognized sooner than would otherwise be expected. This will provide line managers with an earlier opportunity to address issues raised by any such findings with regard to the current workforce.

DOE's challenge, in times of shrinking budgets and resources, is to initiate a targeted, cost-effective program that will give former and current workers, DOE medical personnel, and line managers information that will be useful regarding potential health concerns and actions that should be taken to prevent or diagnose early potential, work-related conditions. DOE believes that by devoting some of its scarce resources to the study of selected, at-risk former worker populations, the focus and cost-effectiveness of ongoing surveillance programs can be significantly enhanced.

III. DOE Proposal for Medical Surveillance for Former Workers

DOE is proposing to make funding available in fiscal years 1996 and 1997 through a **competitive process** for **cooperative agreements** for a limited number of pilot medical surveillance projects for former workers at selected DOE sites. Consistent with section 3162, an avenue available for the administration of this program is through NIOSH to support projects at selected DOE defense nuclear sites.

The projects will be designed to **identify**, **notify**, and, where appropriate, **medically screen** groups of former workers from specified sites potentially at "significant risk" for health problems due to work-related exposures. At each site, every effort will be made to insure full utilization of existing information and resources. Completion of the programs will demonstrate the scope and content of a medical surveillance program for former workers and how such a program can be effectively integrated with other ongoing site activities. DOE, operating contractor, and local union safety and health personnel at the selected sites will be asked to coordinate closely with the projects to ensure that existing data and resources are utilized and that site activities are effectively integrated.

Pre-selection of Sites

Prior to soliciting project applications in the Federal Register, DOE will identify preferred sites for these pilots. Key factors in the selections of sites include: 1) the presence of existing worker and community health programs; 2) the cooperation and support from DOE site managers and operating contractors; and 3) the cooperation and support from both national and local unions representing former workers.

Elements of the Program

At each site where this program is offered, successful applicants will perform the following core tasks:

1. conduct a "needs assessment" as described below. The needs assessment will include a review of existing site information and other appropriate means to initially identify the most significant radiation and nonradiation exposures, or potential exposures, among former workers;

2. **identify** and **locate** those former workers who based on their actual or probable exposure history are "at risk";

3. **ascertain the health concerns** of former workers related to their past DOE employment;

4. determine the appropriate response to the information gathered in (1), (2), and (3), ranging from communication of risk information to former workers, to identification of clinically accepted medical screening procedures;

5. **communicate** risk information to former workers regarding the nature of their health risk and discuss the appropriate actions that could be taken;

6. **provide appropriate medical screening** to targeted former worker populations based on exposure history and the availability of acceptable screening tests;

7. **coordinate** appropriate **referrals**, **diagnostic workup**, and **followup treatment**;

8. provide for coordination with **existing insurance** and **benefits programs**;

9. manage data collection and handling in accordance with DOE-specified requirements and quality control procedures; and

10. establish an independent project advisory body to monitor and provide advice on project activities.

Needs Assessment

To ensure that each project is designed to accommodate the unique historical, industrial, demographic and sociological characteristics of each selected site, DOE will require that each project begin with a "needs assessment." The purpose of the needs assessment is fourfold: 1) to identify all information from ongoing and past site efforts relevant to determination of exposure and health outcomes among selected former workers at that site; 2) to utilize this information in identifying and/or developing viable methods for contacting these former workers; 3) to provide an initial determination of the most significant worker hazards, problems and concerns for each site, and 4) to identify approaches for conducting the project in partnership with representatives of workers, site management, operating contractors, community representatives, and State and local health department officials.

DOE's Role

To ensure consistency of the program among sites, DOE will establish the core tasks to be performed (as specified above under "Elements of the Program"), the quality control measures to be followed, the expected output from these pilots, and the criteria for evaluating the success of these projects.

DOE will monitor and evaluate the results of the projects, including the participant's level of satisfaction, to determine how these pilots could be expanded to other groups of former workers both at the project sites and at other DOE sites. Information gained from these projects is expected to contribute to DOE's ongoing efforts to improve health and safety programs for current workers, particularly among those groups whose work involves nonradiation hazards and large variations in day by day work activities and exposures.

Integration and Leverage

Recognizing the limitations of the 3162 program scope (identification and screening of targeted former workers), DOE also will encourage cooperative agreement recipients to develop innovative ways to involve local and regional health organizations that would help institutionalize and maximize the potential public health benefits from this program.

IV. Applicants

Applicants for the cooperative agreements could include domestic nonprofit and for profit organizations, universities, medical centers, research institutions, national laboratories, other public and private organizations, including State and local governments, labor unions and other employee representative groups, and small, minority and/or women-owned businesses. Consortiums of interested organizations are encouraged to apply. Awardees for each site-specific project will be expected to work cooperatively with DOE site officials, DOE operating contractors, local labor organizations, designated community representatives, and NIOSH grantees and contractors conducting related worker exposure assessment and medical surveillance activities.

V. Process and Schedule

DOE and/or NIOSH will publish a Request for Applications (RFA) in the Federal Register by December 1995. Approximately 5 to 10 DOE sites will be identified in the formal announcement as eligible for project locations; however, the total number of cooperative agreements to be awarded will not be specified. Awards will be made based upon available budgetary resources and the merit determined through a peer review process.

The RFA will invite applicants to propose to conduct a site-wide "needs assessment" at the site they select. The product of this needs assessment will include a plan to conduct a medical surveillance program (as outlined in this proposal and the RFA) for selected former workers from that site. Approval to implement program plans which DOE finds satisfactory will be

provided separately, upon submission of a satisfactory cost proposal, subject to the availability of funding and successful peer review.

Defense Authorization Act funds will be used to fund the cooperative agreements, which will be awarded though an existing DOE process or alternatively by NIOSH. Additional Defense Authorization Act funding from the Offices for Defense Programs and Environmental Management will support DOE landlord and operating contractor activities related to project implementation at the selected sites. These activities could include coordination and meetings with the cooperative agreement awardees and organized labor, provision of access to records, use of onsite clinics for medical screening, and other tasks.

The proposed schedule for this project is:

December 1995	Publish Request for Applications
February 1996	Applications due
April 1996	Award cooperative agreements for needs assessments (up to 12 months duration)